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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,495	02/12/2004	Jurgen Wirth	PO7917/HE-177	5260
157 7590 01/23/2007 BAYER MATERIAL SCIENCE LLC 100 BAYER ROAD PITTSBURGH, PA 15205			EXAMINER HUSON, MONICA ANNE	
			ART UNIT	PAPER NUMBER
			1732	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/23/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/777,495

Applicant(s)

WIRTH ET AL.

Examiner

Monica A. Huson

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This office action is in response to the paper filed 31 October 2006.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Soechtig (U.S. Patent 4,944,599). Regarding Claim 1, Soechtig shows that it is known to carry out a process for producing a polyurethane molding (Column 1, lines 41-42) comprising (a) conveying in shot operation at least one isocyanate component and at least one polyol component for a predetermined time-interval into a mixing chamber at predetermined volume flow rate for each component and predetermined pressure for each component (Column 4, lines 52-54; Column 6, lines 5-10); (b) mixing the isocyanate and polyol in the mixing chamber to form a polyurethane reaction mixture (Column 4, lines 53-54); and (c) discharging the polyurethane reaction mixture into a mold (Column 4, lines 55-56), and in which (1) prior to (a), the isocyanate and polyol are conveyed in circuit through circulation lines between the mixing chamber and their respective storage vessels (Figure 1, 6=storage vessels, 7=mixing chamber, circulation lines between 6 and 7 shown), (2) the pressure of the isocyanate and of the polyol are measured by means of pressure sensors and transmitted to a control device (Column 7, lines 3-5); (3) the volumetric flow rates of the isocyanate and polyol are adjusted while being conveyed through the circulation lines in such a way that the pressure of each of the

isocyanate and polyol in the circuit corresponds to the predetermined pressures of the components for shot operation (Column 7, lines 5-15, 26-30); and (4) the volumetric flow rates of the isocyanate and polyol are adjusted by the control device during change-over from circulatory mode of operation to shot operation by adjustment of drive units of metering elements for the isocyanate and polyol (Column 7, lines 15-30, 43-62; Column 8, lines 1-22).

Regarding Claim 4, Soechtig shows the process as claimed as discussed in the rejection of Claim 1 above, including a method in which the pressure of the isocyanate and of the polyol both during recirculation and during shot operation lie within a range from 3 bar to 600 bar (Column 5, lines 33-40).

Regarding Claim 5, Soechtig shows the process as claimed as discussed in the rejection of Claim 1 above, including a method in which the pressure of the isocyanate and of the polyol both during recirculation and during shot operation lie within a range from 50 bar to 350 bar (Column 5, lines 33-40).

Regarding Claim 6, Soechtig shows the process as claimed as discussed in the rejection of Claim 1 above, including a method in which the pressure of the isocyanate and of the polyol both during recirculation and during shot operation lie within a range from 100 bar to 250 bar (Column 5, lines 33-40).

Regarding Claim 7, Soechtig shows the process as claimed as discussed in the rejection of Claim 1 above, including a method in which the volumetric flow rate of the isocyanate and of the polyol are registered permanently by a volumetric flow meter, the flow rates are signaled to the control system by means of a pulse line and any flow rate exceeding a set tolerance which arises during a shot is ascertained and corrected for subsequent shots (Column 3, lines 21-42).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1732

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (U.S. Patent 5,240,969).

Regarding Claim 2, Soechtig shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show using additives added to his polyol and isocyanate. Brown shows that it is known to carry out a method in which additives in addition to the polyol and isocyanate are employed (Abstract). Brown and Soechtig are combinable because they are concerned with a similar technical field, namely, methods of molding polyol and isocyanate mixtures. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Brown's additives in Soechtig's molding process in order to produce a reinforced article.

Regarding Claim 3, Soechtig shows the process as claimed as discussed in the rejection of Claim 2 above, but he does not show using a dye added to his polyol and isocyanate. Brown shows that it is known to carry out a method in which a dye is employed (Column 3, lines 38-50). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Brown's dye in Soechtig's molding process in order to produce an article having desired color characteristics.

### ***Response to Arguments***

Applicant's arguments filed 31 October 2006 have been fully considered but they are not persuasive.

Applicant contends that Soechtig does not show the instant invention because he does not show the adjustment of volumetric flow rates while being conveyed through the circulation lines to the volumetric flow rate during shot

operation (see response, page 2, last paragraph). The examiner believes that there is a typo here; applicant intends to argue that Soechtig does not teach the adjustment prior to shot operation. This is not persuasive because Soechtig shows adjusting the flow rates prior to mixing (and thus, shot operation) at Column 7, lines 5-7, 12-15, 26-30.

Applicant contends that Brown does not show the instant invention because he does not show maintaining a constant volumetric flow rate during shot operation. This is not persuasive because Brown was not cited to show this limitation.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Monica A Huson

January 17, 2007



CHRISTINA JOHNSON  
SUPERVISORY PATENT EXAMINER

1/19/07